

ItN | Nanovation

ItN Nanovation AG: Water Treatment Solutions

- Ceramic flat membranes and associated CFM systems
- Mobile filtration systems



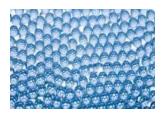
Company profile



- ItN Nanovation AG was formed in the year 2000 and now is one of the leading nanotechnology companies in Germany. It develops innovative ceramic filter systems and coatings for major industrial customers;
- The company is headquartered in Saarbruken, Germany. By now more than 40 people work at the company;
- ItN Nanovation AG is a public company, its shares are traded on the Frankfurt Stock Exchange;
- Major stakeholders are RUSNANO, Nanostart AG and Stoll Family.



Innovative Water Treatment Solutions



- ItN Nanovation AG (Germany) manufactures 2 types of solutions for water treatment:
 - Ceramic flat membranes (CFM) and associated filtration systems;
 - Moving bed bio reactors (MBBR) mobile filtration systems;
- General description of the solutions is presented beneath:

Segment

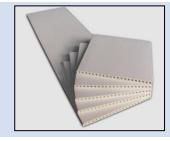
Product

Visual representation

Key competitive edge vs. the nearest rivals

Water desalting

Ceramic flat membranes (CFM)



- ✓ The filtration rate is 300% higher;✓ The service life is up to 50% longer;
- ✓ Better filtration quality;
- ✓ Resistant to high temperatures.

Waste water treatment

Moving bed bio reactors (MBBR) mobile filtration systems

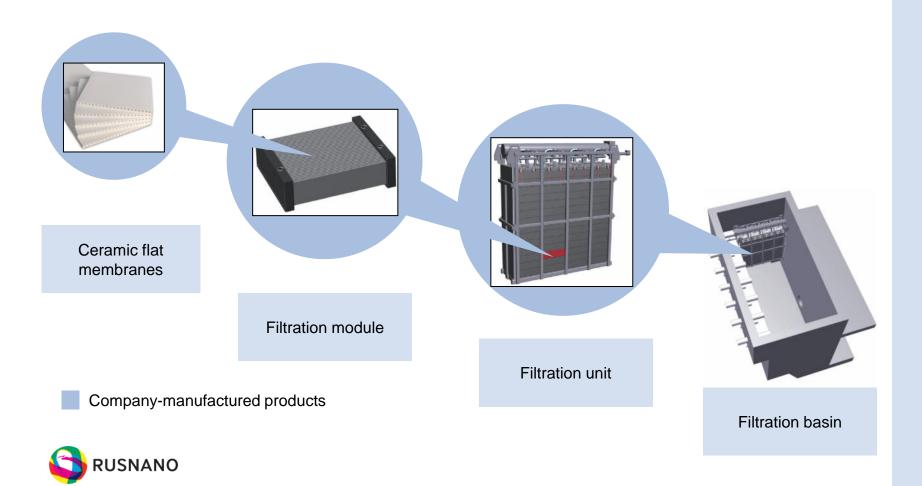


- ✓ The output capacity is 700% higher than analogues have;
- √ 90% waste water recycling;
- ✓ The post-treated water is close to drinking water quality;
- ✓ The reactor is highly mobile and easy-toinstall.



Application of Ceramic Flat Membranes in filtration systems

- ItN Nanovation AG nanocoated ceramic flat membranes (CFM) and associated filtration systems are used as an alternative to conventional filters (polymer, plastic and sand) to perform the ultrafiltration process (e.g., the one precedent to the reverse osmosis process);
- The typical ItN Nanovation AG ultrafiltration solution is presented below:

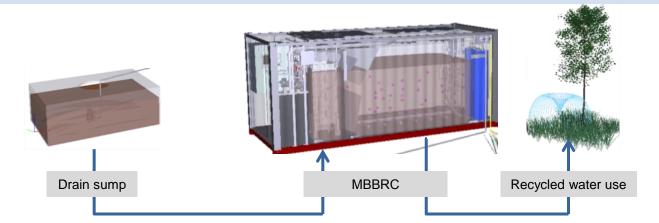


Moving Bed Bio Reactors mobile filtration systems overview



- Mobile container-type facility is the biological waste water treatment system (MBBR technology) combined with the membrane filtration (based on the CFM), manufactured in the ISO-type container;
- MBBR produces water close to the drinking quality and guarantees safe recycled water usage;
- The containers can be used at various facilities that are not connected to the municipal sewage system, e.g.
 - villages and small towns;
 - schools and nursery schools;
 - hospitals and clinics;
 - tent and military camps;
 - hotels and resorts.

Compact Solution: Container-type MBBR with CFM Systems





Moving Bed Bio Reactors mobile filtration systems advantages



Key Advantages

- Compact container, ready-to-connect
- Decentralized mobile solution
- 100% water recycling
- Easy-to-monitor and control via Internet
- Chlorination can be integrated to the water treatment facility for additional water decontamination.

MBBR Overall View





Contacts



For more details please contact:

Alexander Kondrashov

Managing Director, OJSC RUSNANO

Tel: +7 495 988 5388 ext. 1422

E-mail: <u>Alexander.Kondrashov@rusnano.com</u>

Denis Cherkasov

Sr. Investment Manager, OJSC RUSNANO

Tel: +7 495 988 5388 ext. 2330

E-mail: Denis.Cherkasov@rusnano.com

